

Chapter 4.6

Electronic Tools for Online Assessments: An Illustrative Case Study from Teacher Education

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ABSTRACT

The tools used in assessment allow instructors to communicate performance information to students. Each tool has particular things that it does well or poorly, encouraging particular kinds of assessment and discouraging others. This chapter explores the use of three particular software tools—Rubistar, an assessment database, and a document comparison feature—within a teacher education course. We comment on the tools' affordances, role in the assessment process, and ability to help instructors model effective practices for teacher education students. We also discuss two measurement issues, construct validity and consequences of use, that pertain to tool use in this environment.

INTRODUCTION

Assessment serves a vital and unique function in online teacher education. The measures used should not only provide teacher education students with information about their progress in a particular course, but also model practices they can employ in their own classrooms. Providing feedback to students is particularly important in the online environment, given the inherently limited opportunities for informal interactions. Tools are needed that facilitate the interactions between the teacher and students and maximize the clarity and quality of the information students receive regarding their performance.

In this case study, we explore the use of three software tools in the assessment of an opinion paper assignment in the context of an online educational technology class. The first is Rubistar, a Web-based rubric generation, storage, and evaluation product. The second is a FileMaker database designed to streamline the process of using rubrics, make communicating with students easier, and yield more comprehensive data on student performance. Finally, the use of Microsoft Word's electronic document comparison feature allows Jon to quickly see and evaluate student progress as a document moves from draft to final form.

For this chapter, we intentionally selected a traditional assignment to provide a backdrop that we believe will be well understood by an academic audience. All three of the tools described in this chapter are commonly found in university settings and are usable by instructors with moderate technological expertise. Each of the three tools can and has been used in the assessment of student work produced in both online and face-to-face settings. In this chapter, we situate the use of the tools in an online undergraduate teacher education course, commenting on ways in which such use capitalizes on the affordances and minimizes the barriers inherent to their application in online education.

Following the descriptions of the tools is a discussion of the measurement issues (e.g., construct validity and consequences of use) embedded in their use within an online setting. This chapter is organized as an illustrative case study. Stopping short of describing our methods as *best practices*, we term them *warranted practices*, carefully elucidating the reasoning behind our decisions. Throughout the chapter, we strike a balance among three areas of interest: (a) a description of how the tools are used in this setting, (b) a discussion of the measurement issues raised by using these tools in this way, and (c) observations regarding modification of the use of the tools to fit other online settings.

BACKGROUND

Online universities are becoming more mainstream (Guri-Rosenblit, 1999; Peat & Franklin, 2002), and traditional universities are offering a wider variety of courses online (Maloney, 1999). With this expansion in offerings, more college faculty will be expected to teach in online environments. As they do so, challenges in managing and assessing student work will come to the fore (Stallings, 2002). Tools for making the assessment process more manageable are available, but many faculty members are unaware of the tools that are available to them and the techniques for their use. When faculty members do use advanced tools and techniques for assessing student work, they can give more feedback to students and aggregate student data in ways that allow demonstration of connections to national standards (Wright, Stallworth, & Ray, 2002). Effective and efficient assessment is key to understanding student progress (National Research Council, 2001) and is especially important in the asynchronous, non face-to-face world of the online course (Schrum, 1999).

Types of Online Assessment

Some of the most common forms of online assessment are tools that allow automatic grading and distribution of scores on objective tests (Atkins, Juchnowski, & Cashion, 2004; Siew, 2003; Zimmerman & Lear, 2003). CourseInfo is one such program that facilitates the development and administration of tests with multiple choice, true/false, and matching questions (Zimmerman & Lear, 2003). Other work has considered the assessment of longer, more complex performances, such as message board communications, individual papers, and group projects. These measures have taken the form of rubrics, Web-based evaluation templates, and peer and instructor feedback during online chats (Bauer, 2002; Freeman & McKenzie,

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